

Pedicularis rainierensis Pennel & Warren

Mt. Rainier lousewort

Scrophulariaceae (Figwort Family)

Status: State Sensitive

Rank: G2G3S2S3

General Description: A fibrously rooted perennial herb standing $\frac{3}{4}$ to $1\frac{3}{4}$ ft (25 to 50 cm) tall. *P. rainierensis* has many basal leaves. The stems of the leaves are purplish fading into green towards the top. The basal leaves are 2 to 6 in. (5 to 15 cm) wide. The blades are longer than they are wide, and sharply toothed. The leaves are divided into leaflets and are alternately arranged going up the main stem. When in bloom, it shows yellowish flowers with a longer hooded petal on top of four fused petals. The length of the hooded petal, or galea, is a little longer than or equal to the tube formed by the petals. It is not beaked, but comes to a stout point. The flowers emerge in a cluster atop a single stem, which is hairy on the upper half. The flowers are about $\frac{1}{2}$ in. ($1\frac{1}{2}$ cm) long at maturity. Short bracts occur beneath the flowers. *P. rainierensis* has five sepals. The upper sepal is shortest, while the other four form in lateral pairs.

Identification Tips: *Pedicularis rainierensis* has basal leaves, which are $\frac{1}{4}$ to $\frac{1}{2}$ in. (5 to 15 cm) long. The inflorescence is spike-like. It has yellow flowers and small hairs below the inflorescence. In contrast, the leaves on *P. bracteosa* var. *atrosanguinea* are $\frac{1}{4}$ to $2\frac{3}{4}$ in. long (1 cm to 7 cm) and the corolla is red-purple, or sometimes wholly yellow. The sepals are slender, elongate, and glandular. *P. bracteosa* var. *atrosanguinea* is found in the Olympic Mountains. *P. ornithorhyncha* has mostly basal leaves that are 1 to $4\frac{3}{4}$ in. (3 to 12 cm) long, and could be $\frac{1}{4}$ to $\frac{3}{4}$ in. ($\frac{1}{2}$ to 2 cm) wide. The flower clusters are formed in a dense head of flowers. The galea is quite distinct and beaked, with a beak length of $\frac{1}{16}$ to $\frac{1}{8}$ in. (2 to 4 mm).

Phenology: Flowers from July to August.

Range: This mostly subalpine species has only been found on and near Mt. Rainier, Washington, at elevations ranging from 5,000 to 6800 ft (1524 to 2073 m).

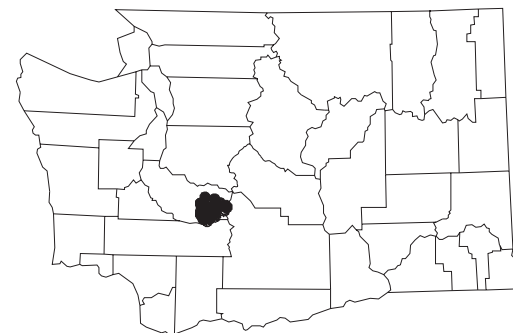
Pedicularis rainierensis

Mt. Rainier lousewort

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Known distribution of
Pedicularis rainierensis
in Washington



- Current (1980+)
- Historic (older than 1980)

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Photo by Katy Beck



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Habitat: *Pedicularis rainierensis* is generally found in moist alpine meadows, open coniferous forests, and on rocky slopes. Often it grows near streams, and it is known to occur throughout some lake basins. Common associates include *Phyllodoce empetrifolia* (pink mountain heath), *Vaccinium deliciosum* (Cascade bilberry), *Valeriana sitchensis* (Sitka valerian), *Carex nigricans* (black alpine sedge), *C. spectabilis* (showy sedge), *Aster alpigenus* (tundra aster), *Veronica cusickii* (Cusick's speedwell), *Saxifraga ferruginea* (rusty hair saxifrage), *Anemone occidentalis* (white pasque flower), and the various *Pedicularis* (lousewort) species.

Ecology: This species grows in soils with substrates ranging from deep loam to moist talus and has been seen on gravelly slopes. Occurrences have been documented from subalpine to alpine elevations.

State Status Comments: Known from six historic and two recent occurrences in Pierce County, one recent occurrence from Lewis County, and one recent occurrence from Yakima County.

Inventory Needs: Further inventory in and around Mt. Rainier National Park is recommended.

Threats and Management Concerns: Threats include trampling by elk and hikers, grazing by elk and marmots, collecting by humans, disease, adjacent roads, cross country camping, and trails.

References:

Hitchcock, C.L., A. Cronquist, M. Ownbey, J.W. Thompson. 1959. *Vascular Plants of the Pacific Northwest Part 4: Ericaceae Through Campanulaceae*. University of Washington Press, Seattle, WA. 510 pp.

Potash, L.L. 1991. *Sensitive Plants and Noxious Weeds of the Mt. Baker-Snoqualmie National Forest*. USDA: Forest Service-Pacific Northwest Region. 116 pp.